

Title (en)
Tool monitor.

Title (de)
Werkzeugüberwachung.

Title (fr)
Moniteur d'outil.

Publication
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Application
EP 89105179 A 19890322

Priority
• JP 7159288 A 19880324
• JP 31075688 A 19881207

Abstract (en)
The tool monitor according to this invention comprises an acoustic emissions (AE) sensor (5) to be mounted in the neighborhood of and without contact with a machine tool (1, 3, 15) and a tool damage detection means (6) adapted to detect any damage to a tool (2) of the machine tool (1, 3, 15) according to a level of an output AE signal within a predetermined frequency band generated from the AE sensor (5) at the time of occurrence of damage. Since this AE sensor (5) is not in contact with the machine tool spindle (1), work table (3) or work piece (4), it is easy to set the sensitivity of the AE sensor (5) and variations in the AE sensor output signal level are minimized. The AE sensor (5) is also effectively protected against flying chips, and noise due to contact with the chips is reduced, thereby minimizing the possibility of erroneous operation.

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